

Value-Added Opportunities for Maine Dairy Farms

Economic development through on-farm diversification and
production

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Maine Department of Agriculture, Food and Rural Resources

January, 2005

Forward

This report is the result of work accomplished under a Federal-State Marketing Improvement Program (FSMIP) grant to explore new marketing channels for the state's dairy farmers. The project has been conducted in cooperation with the Maine Department of Agriculture, the University of Maine, Coastal Enterprises, Inc., Farms for the Future, the Maine Organic Farmers and Gardener's Association, the Maine Small Business Development Centers, the Maine Agricultural Center, and the University of Maine Cooperative Extension.

This paper is in part a compiled and edited version of work done by ATTRA National Sustainable Agriculture Service and The Agricultural Marketing Research Center. These works were very well done and our project management team felt that editing, updating and making these publications more regional to our needs was preferable to a whole new rewrite of another publication. While this publication is always a work in progress, we hope it serves a purpose to help some additional farmers evaluate the opportunities presented in this work.

Acknowledgements

The authors wish to thank the USDA FSMIP program for the funding to help make this project a reality. We wish to thank the authors of the ATTRA and The Agricultural Marketing Research Center for the comprehensive work accomplished to date on value added enterprises, and in particular, Linda Coffey and Malinda Miller for allowing us to reprint and further edit those publications. We wish to thank Carol Jones, Marketing Specialist for the Maine Department of Agriculture for her valuable advice and support, Kerri Sands, of Coastal Enterprises, Inc, and Russell Libby of Maine Organic Farmers and Gardeners Association for preliminary market research that contributed considerably to the success of this publication.

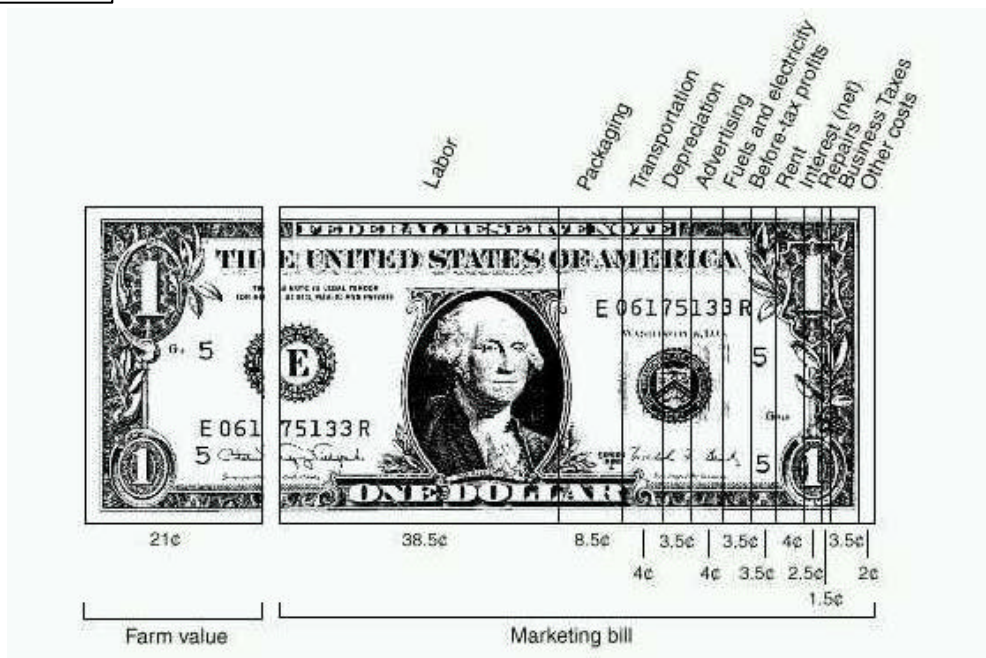
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Introduction

“We are seeing more and more demand for single-farm products. ...More and more non-imported items are of very good quality.” –*Maine Food Retailer, 2004*

Dairying in Maine and the Northeast has been a major farming activity for centuries. Farmers typically would sell many types of products off the farm, including cheese, butter as well as milk. Only in the last 50 years have dairy farms become specialized into selling one commodity, milk, leaving value-added products to the food processing industry. Of each dollar that we pay for food in the United States only 19 cents goes to the food producers. The rest goes to processors, marketers, and distributors.¹ By completing these additional steps themselves, farms gain access to the extra 81cents per food dollar spent.



The Food Dollar, USDA ERS, 2004

The dairy industry is changing to reflect this economic disparity within the food system. Milk prices have not increased much over the past twenty years, while at the very same time, operational expenses have increased dramatically. This places pressure on farms to increase herd size to offset production costs. The average herd size in Maine is now approximately 100 head while in the late 1980's, the average was closer to 60 head. At the same time, commodity farms overall have been on the decline in Maine.²

A growing number of Maine farms have been seeking ways to remain profitable while not necessarily increasing herd size. The state has witnessed a growing segment of Maine farms turning to alternative dairy markets, such as: raising sheep and goat milk, becoming organically certified, on-farm processing and catering to other niche markets. In Maine there are now 358 dairy farms, 60 are organic, eleven are dairies, and at least three farms are producing sheep milk. At least eleven dairy processors specialize in selling non-

pasteurized milk. Fluid milk can be bottled on-farm, certified organic, sold unpasteurized, be made into cheese, yogurt, ice cream, butter and any other number of products. These products can then be marketed in additional ways that further increase monetary value. In addition, farmers are looking for complimentary enterprises such as beef, other crops, and even energy crops.

Many factors predict a good future for value-added dairy enterprises in the Maine. Maine agriculture currently is growing quickly; this is assisted by increased consumer purchases of value-added products, customers are often willing to pay a premium for value-added dairy products, close proximity to population centers (allowing for easier direct marketing), and a large local food market relative to the value of farm sales. If Maine farms were able to capture just 10% of Maine consumers' food expenditures, farm income would increase by \$180 million annually.³

Nationally, trends also highlight benefits for value-added production. There has been an increased consumer demand for specialty and artisan foods, an increase in attention to food in general, a larger disposable income, and finally, consumers are interested in, and willing to pay more for niche products highlighting their beliefs.⁴

Of course, developing your farm to include a value-added enterprise does not happen overnight; it is a slow process that will require capital and time. You will need to understand new markets, legal and regulatory issues, and be able to commit additional labor and management. This guide is intended to assist you through the process of deciding if such a venture is correct for you, and then will walk you through the steps involved in putting your ideas into action.

How to use this guide

Estimate the amount of work and time your enterprise may entail:

a) Product source:

What type of farm setup, heard size do you have?

b) Processing: What type of product do you want to produce & how elaborate of a system will it require?

c) Marketing: How will your processed product need to be marketed -market research, sourcing customers, delivery, and pricing)?

d) Business Planning: How comfortable are you with business planning, organizing?

Developing a business enterprise is no simple task: especially not a value-added dairy business where you may become your own producer, processor, marketing specialist, and business manager. For those willing to undertake such a project, it can be a lot of work, but also a highly fulfilling way to make a comfortable income.

Some questions to consider:

1. Do you have support of your family and friends for this venture?
2. Do any family members or friends have skills that could be utilized in your venture (such as financing, cooking, or marketing skills)?
3. Could you find a business partner who is interested in doing part of the venture on his or her own?
4. Have you considered becoming the processor only, not the grower, and buy-in your raw product?
5. After carefully reviewing the following information, have you completed more in-depth and targeted research and developed a formal business plan?

This guide does not cover all eventual scenarios presented in a value-added dairy enterprise. It covers many *possibilities*, and it is up to you to create your ideal enterprise in combination with your resources. This guide does not attempt to make assertions about how your enterprise will function: it is a starting point for creating a value-added dairy enterprise. For more information to help prepare you for this endeavor, visit the Maine Department of

Agriculture's online Resource Guide. This guide links to over 2,000 resources relating to agricultural enterprises. Simply enter your search criteria and a resource list tailored to your needs will immediately be reported back to you. The Maine Department of Agriculture's Resource Guide is available at:

http://www.foodandfarms.com/connect/resource_search.asp.

General Resources

Farming for Profit and Sustainability Toolkit. Natural Resources Conservation Service, USDA.

www.nrcs.usda.gov/technical/RESS/altenterprise/toolkit.html

Online resource directory with 2,300 pages of reference material, all downloadable in pdf. Valuable resource for any alternative agricultural enterprise.

Food Entrepreneur Resources, Penn State. January 2006.

<http://foodsafety.psu.edu/processor/resources.htm>

Website contains a lot of useful information on small-scale food entrepreneurship in the Northeast.

From Kitchen to Market: Selling Your Gourmet Food Specialty.

By Stephen F. Hall. Dearborn Trade Publisher. June, 2005.

Useful primer in marketing food: includes information on packaging, labeling, pricing, storage, shipping, advertising, and selling value-added food products.

Growing Your Own Specialty Food Business – From Farm to Kitchen to Market

By Patricia Maue, et al. Publication of the NYS Small Business Development Center, Ulster County Community College, Stone Ridge, NY. 1995.

Maine New Farms, University of Maine Cooperative Extension

www.umaine.edu/umext/MaineNewFarm/welcome.htm

A website for small-scale agriculture entrepreneurs to look for information on crop and livestock enterprises.

Making it on the Farm: Increasing Sustainability Through Value-Added Processing and Marketing

Southern Sustainable Agriculture Working Group Publications. 1996, PO Box 324, Elkins, Arkansas 72727. \$12

New England Small Food Processors Project

For more information contact your county Extension Office or visit:

<http://www.umext.maine.edu/topics/hazard.htm>

The New England Small Food Processors Project includes four fact sheets, a video tape and a notebook to introduce the concept of Hazard Analysis Critical Control Point (HACCP) to small-scale food processors throughout the region, including how to set up a HACCP plan. For more information on these and other food safety programs or information, please contact your county Extension office.

Online Support for New England Food Entrepreneurs. New England Extension Food Safety Consortium.

University of Maine Cooperative Extension?
Mahmoud El Begearmi Ph.D. ?
Extension Professor, Nutrition and Food Safety
Family Living Office?
5717 Corbett Hall, Orono, ME 04469-5717?
Phone: (207) 581-3445
FAX: (207) 581-4430?
Email: mahmoud@umext.maine.edu
Website: www.umass.edu/nefe/index.html

As an outreach program of the New England land-grant universities, Cooperative Extension compiled this website as a resource for small food processing operations in New England. Some of the resource links included in this website in information on business planning, training opportunities, and regulations.

Taste of Success: Resources for Maine's Value Added Food Producers and Community Grocers

Go to: <http://www.mainesbdc.org/>, and follow links to “Taste of Success” information, or contact:

Maine Small Business Development Center
State Office
96 Falmouth Street
P.O. Box 9300
Portland, ME 04104-9300
Phone: (207) 780-4420
Email: mainesbdc@usm.maine.edu

The Taste of Success is part of a larger project designed to offer targeted services that will help boost the productivity of Maine's growing food industry. This is a collaborative project of the Maine Small Business Development Centers, Maine Center for Women Work and Community, and the Maine Gourmet and Specialty Foods Association.

Ways to Add Value to Farm Milk

By Mark Stephenson. Cornell Program on Dairy Markets & Policy,
Cornell University. May 2000

http://hortmgt.aem.cornell.edu/pdf/smart_marketing/stephenson5-00.PDF

Publication of Cornell, walks potential value-added dairy farmers through the initial decision making process.

Questions You Should Answer Before Starting a New Dairy Processing Enterprise

By Brian M. Henahan , Department of Agricultural, Resource, and
Managerial Economics, (ARME) Cornell University

<http://www.cpdmp.cornell.edu/CPDMP/Pages/publications/Pubs/dairypq.pdf>

This article supplies a useful set of questions, crucial to the beginning stages of developing a value-added enterprise.

Planning Your New Value-Added Farm Enterprise

Developing a business plan is an important first step in creating a new enterprise. Business plans typically include a marketing plan, production, financial, staffing and management plan. Your plan will be used to gain access to financing, partners, and for the family to plan.

By developing a business plan, you will be able to think about what you want to develop, who your customers will be, how you want to position yourself in the market, and how much it will cost you to start the enterprise. You will also be able to test your financial assumptions to determine the extent of the risk you and your family will be taking on with the new enterprise.

A sample plan outline is included on the CD to help you organize your plan. You can also find sample plans through your local Cooperative Extension Office and your Small Business Development Centers. Currently, the Maine Department of Agriculture has a business planning course, “Tilling the soil of opportunity”, and a business planning technical assistance program, “Maine Farms For The Future”, available to help you as well.

Resources

Farm Business Planning Template, Business Counseling and Loans, Maine Department of Agriculture , Food and Rural Resources

Contact: John Harker, Division of Market and Production Development, 28 State House Station, Augusta, ME 04333 287-7620. Email: John.Harker@maine.gov

Maine Cooperative Extension Small Business Specialist

University of Maine Cooperative Extension
Business and Community Development Office
5741 Libby Hall, Room 106, Orono, ME 04469-5741
Phone: (207) 581-3167 or 1-800-287-0274 (in Maine)
FAX: (207) 581-1387
E-mail: jimm@umext.maine.edu

<http://www.umext.maine.edu/topics/home.htm>

Maine Small Business Development Centers

A number of offices in each county provide business planning assistance and templates. Go to: <http://www.mainesbdc.org/> for further information on a regional office near you.

Heart of Maine RC&D “Tilling the Soil of Opportunity” Nxlevel Business Planning Courses

Business planning classes held each year for agricultural and food processing small businesses. Contact: Tessa Burpee, 368-4433. Email: tburpee@qwi.net.

Building a Sustainable Business: A Guide to Developing a Business Plan for Farms and Rural Businesses.

The Minnesota Institute for Sustainable Agriculture. Saint Paul, MN. 2002. 280pp.

A guide especially designed to help alternative agriculture entrepreneurs work through the planning process and begin to develop a business plan.

You Can Make It, You Can Sell It, but Can You "Make It" Selling It?

By Gary Frank. UW Madison Center for Dairy Profitability. April 2000.

<http://cdp.wisc.edu/pdf/onfarm.pdf>

This article guides future dairy product producers through planning his or her future ventures. It includes useful links to organizational spreadsheets.

Finding The Right Value-Added Enterprise For Your Farm

Raw Product Sourcing

If you do not already dairy farm, you have a number of raw product sources to consider before deciding on an end product; different types of milk are more successful at particular types of processing. You should also carefully consider what type of infrastructure and animal qualities you enjoy working with. Cows, for example, produce large amounts of milk, but cannot be easily transported to visit a vet, while nearly the opposite is true of sheep.

Remember, becoming a value-added dairy producer can require knowing two systems very well: animal husbandry and the processing of milk. Each, on its own, can constitute a full time position. You should know your farming system thoroughly before engaging in and relying upon processing the milk for income.

A successful Maine value-added dairy processor advises: “Join the Cheese Guild. Get to know (and visit) other cheesemakers in Maine. Start small. Don't quit your day job too soon. Be sure of your market before you invest heavily. Be sure you enjoy taking care of your animals (milking happens twice a day) or if you don't plan to milk animals, be sure of your milk source. Put the word out about what you are planning -- so much equipment is just lying around in old barns and could be had for a song. Use Uncle Henry's.”

Dairy Cattle

Dairy cattle are, by far, the most common domestic milk-producing animal in the United States. Similarly, the dairy products of these animals account for the vast majority of dairy products consumed in the United States. This is good news for processors of dairy cattle milk: in the next few years, overall demand for dairy products is expected to grow at a slightly faster pace than the US population.⁵ Fluid milk consumption on the other hand, has been shrinking, and this trend is expected to continue.⁶

Because dairy cattle milk is highly available, it is ideal for making products such as cheese and butter that require high inputs. It is also processed into just about any dairy product one can imagine. For more information on quantities of raw milk needed per processed product, see Table 1. If you are not interested in processing your own milk, finding processors, both large and small, for dairy cattle milk is relatively simple in most areas of Maine.

Dairy cattle can produce anywhere from 4-10 gallons of milk per day, depending upon the breed and lifestyle. They require a strict milking schedule of twice per day, usually at twelve-hour intervals, some larger farms milk three times per day. Lactations generally last 9-10 months, and birthing is most often staggered so that a herd produces milk year round, although seasonal milking has begun to receive attention as a marketing niche.

There are six major breeds of dairy cattle common to the United States. Holsteins, the most common, produce the greatest quantity of milk but have a low percentage of milk-fat. Jersey's, Guernsey's and Brown Swiss are the next most common breeds, and produce less milk, but it on average, have a higher milk fat content than Holsteins.

The wholesale price of dairy cattle milk varies from day to day. For current prices in Maine and information about the State's minimum price regulations, contact the Maine Milk Commission, at:

Stanley Millay
Executive Director ?
28 State House Station
Augusta, ME 04333?
Phone: (207)-287-7521?
E-mail: stan.millay@maine.gov
Or visit their website, at: <http://www.maine.gov/agriculture/mmc>

Table 1: Milk processing projections per pounds of fluid milk

Milk Per Day (lbs) <i>Yields:</i>	200*	400	600	800	1000
Quarts of whole milk	93	186	279	372	465
Quarts of skim milk,	89	179	268	357	447
Pounds of Butter	0	1	1	2	2
Quarts of buttermilk	0	1	1	1	2
Quarts of yogurt	93	186	279	372	465
Pounds of cheese	20	40	60	80	100
Pounds of butter	9	19	28	38	47
& quarts of buttermilk	7	15	22	30	37

*200# represents about five Jerseys on grass, with minimal grain, or two high-producing Holsteins being fed heavily. The chart can be used as a combination, e.g. the customer base uses 100 quarts of milk per day, and 40 pounds of cheese; total milk needed is 600#, representing 15 Jerseys or 6-7 Holsteins.⁷

Resources

Cattle Breeds

Oklahoma State University Board of Regents. 1996.

<http://www.ansi.okstate.edu/breeds/cattle/>.

Comprehensive online listing of cattle breeds.

The Cost of Producing Milk in Maine: Results from the 2002 Dairy Cost of Production Survey

By T.J. Dalton and L.A. Bragg. University of Maine Cooperative Extension. 2003.

<http://www.umaine.edu/rep/publications/tb189.pdf>

Dairy Farm Sustainability Checksheet

By Ann Wells and Ron Morrow. ATTRA National Sustainable Agriculture Service. National Center for Appropriate Technology. March 2001.

<http://www.attra.org/attra-pub/PDF/dairychecksheet.pdf>

To receive a printed copy, contact ATTRA at 1-800-346-9140

Dairy Goats

Goat milk products, although in strong demand within a niche market, are still relatively uncommon in the United States. In recent years, the industry has witnessed gradual growth, attributed to the health and specialty nature of goats' milk and milk products. The milk is credited with containing many nutrients not found in dairy cow's milk, and as being easier for many people on a special diet to digest.

Goat milk is processed most commonly into cheese (frequently soft cheese) and also into yogurt, ice cream, fudge/chocolate, and sold in its fluid form. It can also be processed into body care products such as soaps and lotions, which is a particularly good option for dairies not interested in grade A certification.

Goats produce more milk than sheep and less than cows, averaging $\frac{1}{2}$ to $\frac{3}{4}$ gallons each day. They are often milked twice a day, and are kept on a seasonal schedule. They can be milked once/day for a bit less production, or three times/day to increase production. Goats also can be stagger-bred to milk year round. Lactations generally last around 8-10 months. Milking twice per day, seasonally, is often the most cost efficient system.

There currently are six common breeds of dairy goats in the United States, and each is known for particular milk compositions and qualities. It is important to consider these factors in your goat in accordance with your end desires. The most common dairy goat breed in the United States is the Nubian. Nubian's have a large amount of solids in their milk, and thus are best for cheese.

Much like sheep, goat dairies comprise such a small fraction of the United States dairy industry that little statistical information is available regarding wholesale market prices. To explore information on goat dairies such as current bulk price standards, or availability of processing areas, you should inquire with other goat dairies in Maine.

Resources

American Dairy Goat Association

209 West Main St., PO Box 865
Spindale, NC 28160
Phone: 828-286-3801
Fax: 828-287-0476
Email: info@adga.org
<http://www.adga.org>

Goat Breeds

Oklahoma State University Board of Regents. 1996.

Website: <http://www.ansi.okstate.edu/breeds/goats/>

Comprehensive online listing of goat breeds

Goats: Sustainable Production Overview

By Linda Coffey, Margo Hale, and Ann Wells. ATTRA National Sustainable Agriculture Service. National Center for Appropriate Technology. August 2004.

<http://attra.ncat.org/attra-pub/PDF/goatoverview.pdf>

Provides fundamental information relevant to all goats, especially about feeding, reproduction, and health

To receive a printed copy, contact ATTRA at 1-800-346-9140

Heart of Maine & Southern Maine Dairy Goat Associations

Jennifer Mellett

4 Dusty Acres

Biddeford, Me 04005

Phone: 207-283-4098

Email: JenMellett@aol.com

Maryland Small Ruminant Page.

Susan Schoenian, Sheep and Goat Specialist at the Western Maryland Research & Education Center, University of Maryland Cooperative Extension

Website: <http://www.sheepandgoat.com/>

SheepGoatMarketing.info

This website is a joint project between the University of Maryland and Cornell University

Website: <http://sheepgoatmarketing.info/>

Email: nesgmp@cornell.edu

Includes, among other resources, a list of sheep and goat processors in Northeast, funding sources, and a directory of producers.

Small Ruminant Dairy Project

Carol Delaney

UVM Center for Sustainable Agriculture

63 Carrigan Drive

Burlington, VT 05405

Phone: (802) 656-0915

Email: Carol.Delaney@uvm.edu

Website: <http://www.uvm.edu/sustainableagriculture/smallrumi.html>

Dairy Sheep

Sheep dairies comprise a very young, emerging industry in the United States. Due to its youth, the risk associated with sheep dairy business can be rather high, but so to can be the growth potential. The market for sheep dairy products in the United States is highest on either coast, and can also be found in ethnic niche markets.⁸ The United States alone imported over \$184,178,000 sheep milk cheese in 2004,⁹ and currently the United States is home to roughly only 100 sheep dairies. Nationally, there is large growth potential for the sheep dairy industry.

Sheep milk is naturally homogenized, meaning solids do not separate to the top, and also has a very high milk solid content. Because of these factors, it is uncommon to consume the milk in its fluid form. More commonly, sheep milk is frozen until enough accumulates to sell in bulk, or make into cheese. The milk is primarily known for the cheeses it produces. It is occasionally also processed into yogurt and ice cream.

Dairy sheep breeds can produce between 1-2 quarts of milk a day (or ¼ to ½ gallon), much less than is produced by other types of dairy animals. Because sheep have strong breeding characteristics, milking seasonally is very typical, although it can be done year-round to increase profits on larger farms. The average number of lambings is 1.5 per year in milking flocks, and lactations often last from 90-160 days. Sheep are most often milked once per day, but can be milked twice per day.

Having quality dairy breed sheep can be an important factor in the success of your venture. The East Friesian breed is the most common breed of dairy sheep in the United States, and there currently is a large enough population in the US to maintain successful breeding. If you already have other breeds, breeding your ewes with a high quality dairy ram can work well.

Much like goats, sheep dairies comprise such a small fraction of the United States dairy industry that little statistical information is available regarding wholesale market prices. To explore information on goat dairies such as current bulk price standards, or availability of processing areas, you should inquire with other sheep dairies in Maine.

Resources

Dairy Sheep

Agricultural Marketing Research Center, USDA. By Malinda Miller. August, 2005.

<http://www.agmrc.org/agmrc/commodity/livestock/lamb/Dairy+Sheep.htm>

General resource on all information relating to dairy sheep, and marketing information in particular.

Dairy Sheep

By Linda Coffey. ATTRA National Sustainable Agriculture Service. National Center for Appropriate Technology. January, 2001.

<http://attra.ncat.org/attra-pub/PDF/dairysheep.pdf>

Useful primer on all aspects of dairy sheep management.

To receive a printed copy, contact ATTRA at 1-800-346-9140

Dairy Sheep Association of North America

Carol Delaney
University of Vermont
200B Terrill Hall
570 Main St.
Burlington, VT 05405
Phone: 802-656-0915
Email: Carol.Delaney@dsana.org , info@dsana.org
Website: www.dsana.org

Dairy Sheep Listserve

Yahoo. <http://groups.yahoo.com/group/dairysheep>

Economics of Sheep Milk

University of Wisconsin Cooperative Extension
http://www.uwex.edu/ces/animalscience/sheep/Publications_and_Proceedings/Dairy_manage_list.htm

Includes sample dairy sheep budget, information on economics, business management, and general advise.

Maine Sheep Breeders Association

Hetty Richardson, President
Phone: 207-626-5913
Email: meadow4@prexar.com
Website: <http://mainesheepbreeders.org/>

Maryland Small Ruminant Page

Susan Schoenian, Sheep and Goat Specialist at the Western Maryland Research & Education Center, University of Maryland Cooperative Extension

Website: <http://www.sheepandgoat.com/>

Sheep Breeds

Oklahoma State University Board of Regents, 1996

Website: <http://www.ansi.okstate.edu/breeds/sheep/>

Comprehensive online listing of sheep breeds

SheepGoat Marketing Info

Website: <http://sheepgoatmarketing.info/>

Email: nesgmp@cornell.edu

Joint project between the University of Maryland and Cornell

University that includes among other resources, a list of sheep and goat processors in Northeast, funding sources, and a directory of producers.

Small Ruminant Dairy Project

Carol Delaney, UVM Center for Sustainable Agriculture

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Email: Carol.Delaney@uvm.edu

Website: <http://www.uvm.edu/sustainableagriculture/smallrumi.html>

Beef Cattle

Raising beef as a value-added product can happen in conjunction with a dairy operation, or independent of one. Over four million bull calves are born each year in the dairy industry¹⁰. Raising these calves into beef can be a relatively easy and cost efficient way of bringing more money to a dairy farm.

In the current, conventional market, about half the value of cattle is incurred after it leaves the farm and is added primarily through handling and marketing fees. This leaves the profit for the farmer or rancher relatively small. By raising cattle on farm through low-cost methods (such as grazing), and marketing the product his or herself, a farmer has opportunity to increase profit by 50%. One farmer in Wisconsin reports that when delivering a hormone, chemical free steer to the market, he would be paid \$800, but when direct marketing the same animal, he makes \$2,000, minus the \$400 slaughter fee¹¹.

Keys to raising the value of beef include utilizing niche and direct markets. Particular niche markets for beef include lean meat, organic, grass fed, local, and “farm fresh” labels.

Although dairy breeds are less efficient in developing meat than beef breeds of cattle, the meat is competitive in other ways. Most dairy meat, but Jersey meat in particular, can marble better than some beef breeds and a notable flavor develops from pasture-raised beef, which can be capitalized upon in marketing¹². Because dairy beef is often a leaner meat than typical beef breeds, it also can benefit from the growing trend toward low-fat foods.

Value-added dairy farmers raising beef will likely need to find slaughterhouses willing to accommodate small-scale farming. Large centers generally do not discriminate between farm products. Meat must be slaughtered at a USDA inspected facility for interstate trade.

For a list of inspected slaughterhouses in Maine, you can contact your county extension office or visit the link below.

Resources

List of State and Federally Inspected Slaughter Facilities in Maine

University of Maine Cooperative Extension

<http://www.umaine.edu/livestock/slaughter.htm>

Alternative Beef Marketing

By Richard Earles and Anne Fanatico. ATTRA National Sustainable Agriculture Service. National Center for Appropriate Technology. May 2000. <http://attra.ncat.org/attra-pub/beefmark.html>

*This publication explores marketing alternatives for small-scale cattle ranchers who would like to add value to the beef they produce.
To receive a printed copy, contact ATTRA at 1-800-346-9140*

Beef Farm Sustainability Checksheet

By Ron Morrow. ATTRA National Sustainable Agriculture Service.
National Center for Appropriate Technology.
<http://attra.ncat.org/attra-pub/beefchek.html>
*Assessment tool to help plan a whole farm in which beef production is a major enterprise. Management of animals, forage, soil, watershed, marketing, economics and goal-setting are addressed in the 200 questions.
To receive a printed copy, contact ATTRA at 1-800-346-9140*

Cattle Breeds

Oklahoma State University Board of Regents, 1996
Website: <http://www.ansi.okstate.edu/breeds/cattle/>
Comprehensive online listing of cattle breeds

Dairy Beef

By Anne Fanatico. ATTRA National Sustainable Agriculture Service.
National Center for Appropriate Technology. April 2000.
<http://attra.ncat.org/attra-pub/dairybeef.html>
To receive a printed copy, contact ATTRA at 1-800-346-9140

Salad Bar Beef

By Joel Salatin. Polyface Publishers. 1995. 368pp.
Essays on raising beef on grass and marketing the product.

Sustainable beef production

ATTRA National Sustainable Agriculture Service. 1999. National Center for Appropriate Technology. 2006.
<http://attra.ncat.org/attra-pub/PDF/sustbeef.pdf>
*Overview of sustainable beef production and management.
To receive a printed copy, contact ATTRA at 1-800-346-9140*

Buying-In Product to Resell, Establishing a Cooperative

If considering dairy processing, but not currently farming, buying-in raw product from area farms to process it yourself is an option to consider. This is a relatively typical system, but developing such an arrangement is unique to each endeavor.

Milk could be sourced directly from farms in your area. To accomplish this, you will need to locate farms not currently in contracts, or with flexible contracts, and you will need to resolve transportation issues. You could also contract through a larger private distributor/processor already working in your area (such as Horizon Dairy). There is also a potential that a small dairy cooperative already exists in your area, and is willing to work with you to transport fluid milk.

One alternative is to organize a cooperative yourself. This producer owned business is democratically controlled and operated. They vary in size from small (several farms), to large (one cooperative in the Northeast, Dairylea Cooperative, Inc., has 2,400 farm members). Cooperatives can help control fluctuating dairy prices, provide financial stability and start-up funding for processing center, and they may also appeal to niche groups as a marketing device.

Resources

CROPP study maps paths to small-scale co-op marketing success

Center for Integrated Agriculture Systems. University of Wisconsin, Madison. October 1995.

http://www.cias.wisc.edu/archives/1995/10/01/cropp_study_maps_paths_to_smallscale_coop_marketing_success/index.php

To receive a print copy, contact:

Center for Integrated Agriculture Systems

University of Wisconsin, Madison

College of Agricultural and Life Sciences

1535 Observatory Drive

Madison, WI 53706

Phone: (608) 262-5200

Cooperatives – a list of related publications

ATTRA National Sustainable Agriculture Service.

Website: <http://www.attra.org/marketing.html#cooperatives>

To receive a printed copy, contact ATTRA at 1-800-346-9140

How to start a cooperative

By Galen Rapp. Rural Business and Cooperative Development Center,
USDA. September 2005.

<http://www.rurdev.usda.gov/rbs/pub/cir4514.pdf>

*Four-page article outlining general benefits and organization of
cooperatives.*

Value-Adding to Raw Milk - Options

Below are a few of the most common methods United States dairy farms employ to add value to their raw products. Many of the below value-adding methods can be used in tandem to create an ideal business meeting your needs.

Resources

Adding Value With Small-Scale Food Processing and Specialty Dairy Products, A Resource Packet.

Farming Alternatives Program, Department of Rural Sociology
Warren Hall, Cornell University
Ithaca, NY 14853
Phone: 607-255-9832
Compiled for 1996 and 1997 Farming for the Future Leadership Workshops. Contains articles, conference materials, project plans, etc.
Cost: \$5.

Beth Calder, PhD

Extension Food Science Specialist
5735 Hitchner Hall, Rm #232
Orono, ME. 04469-5735
Tel. (207) 581-2791
Fax: (207) 581-1636
Email: beth.calder@umit.maine.edu or
bcalder@umext.maine.edu
Outreach for the Department of Food Science and Human Nutrition at the University of Maine.

Small Scale Food Entrepreneurship: A Technical Guide for Food Ventures

Cornell University, Northeast Center for Food Entrepreneurship at the
New York State Food Venture Center
<http://www.nysaes.cornell.edu/necfe/pubs/booklet.html#toc4>
This soft-cover guide contains the information for start-up food processing businesses. It is 108 pages long and bound. The cost for this book is \$15.00. The table of contents and order form are available at the above website.

Small Dairy Resource Book, Sustainable Agriculture Research and Education

Vicki Dunaway, Sustainable Agriculture Network, 2000
<http://www.sare.org/publications/dairyresource.htm>

An annotated bibliography of books, periodicals, videos, and other materials on farmstead dairy processing.

UW Maine Dairy Processing Plant

University of Maine, Orono

Contact Extension Agent Beth Calder (contact information is above) for more information.

Currently the facilities are very limited, but are growing to meet the demands of the value-added industry. There is a pilot plant that has been acquiring new equipment, and they hope to be teaching cheese-making (and possibly other value-added product) workshops in the near future.

Butter

In 2004, U.S. butter production increased 1 percent from 2003, reaching 1.25 billion pounds. Per capita butter consumption was about 4.2 pounds in 2004¹³. According to the Agriculture Marketing Service, Maine should expect a 19.61% increase in spending on butter and margarine between 2003 and 2008.¹⁴

Maine currently has several butter production operations, with a couple, Kate's Butter and Houlton Farms Dairy, producing enough butter to supply larger markets. In a 2004 survey, Maine food retailers, distributors and restaurants reported that sweet cream salted butter is their preferred butter product. Six retailers and one restaurant (out of 12 respondents) reported that they would be interested in selling under 50 pounds of farm-identified butter/week. Furthermore, one retailer reported great success at selling a raw organic Maine butter for \$7.50-\$8.00/lb.¹⁵

Because butter requires a large quantity of milk fat for production, cow milk is the most typical milk used for its production. Dairy cattle breeds producing high-fat content milk, such as Jersey or Guernsey's, are a particularly good choice for butter production. Butter, however, is not limited to dairy cattle milk, and sheep or goat milk may be used as well.

Butter production is often done in combination with a producing a non-fat product to utilize the leftover milk. Often, in commercial plants, the milk is converted to non-fat dry milk. On a small operation you may want to consider coupling butter production with a cheese-making operation, bottling and selling non-fat milk, or selling the leftover milk to another production facility.

Resources

Butter and Cheese Making

By V. Cheke and A. Sheppard. Alpha Books Publisher. January 1985.

"Buttering up your customers" Direct-Market Dairy Products Keep Profits on the Farm

By Martin Kleinschmit and Rebecca S. Kilde. North Central Initiative for Small Farm Profitability.

<http://www.farmprofitability.org/research/butterup/butterup.htm>

A case study of a group of grass-based dairy farms in Minnesota who decided to set their price by producing, marketing and distributing butter and cheese themselves. To request a print copy, you may contact Center for Applied Rural Innovation and Food Processing Center, University of Nebraska, 58 H. C. Filley Hall, Lincoln, NE 68583-0947

Making Cheese, Butter & Yogurt

By Phyllis Hobson. Storey Publishing, LLC. January 8, 1983. 32 pp.
Quick, practical guide to making small-scale cheese, butter and yogurt.

Making Homemade Cheese and Butter

By Phyllis Hobson. Garden Way Publishers. January, 1975. 45pp.

Cheese

In 2004 the United States produced 8.8 billion pounds of cheese. Demand for this cheese is on the rise: in the course of 52 weeks ending in May 2004, specialty and artisan cheese sales increased by 13% in the United States, topping at a value of \$1.4 billion¹⁶.

In Maine, there is a very strong demand for locally produced, quality, fresh mozzarella, soft cheese, mold-ripened cheese, cheddars, hard Italian, blues, and gouda. Buyers for a Maine restaurant recently explained, “Give me something unique, local, and high-quality, and I’ll build my menu around it.”¹⁷ Be careful to not produce a cheese that is already in surplus, or made better elsewhere. A specialty food retailer in Maine warned against a current market saturation of soft goat cheese.

Cheesemaking apprenticeships

WWOF (world-wide opportunities on working farms.

<http://www.woof.org/>),

MOFGA (Maine Organic Farmers and Gardeners Association,

www.mofga.org)

ATTRA (National Sustainable Agriculture Information Service, Internship & Apprentice Listings,

<http://www.attrainternships.ncat.org/>)

Qualities most sought after in Maine-made cheese, include:

1. Complex Flavor and Relationship with Farmer
2. Packaging
3. Interesting Farm Story and *Terroir* (flavor of the land) and Raw
4. Certified traditional and Pasteurized¹⁸

Cheese is readily made from the milk of cattle, goats or sheep, although different cheese types match better with specific milk types. Most cheeses require a long aging period, and unpasteurized cheese must be aged for a minimum of 30 days before sale. Some common cheeses that may be sold “fresh” (unaged) when pasteurized, include farmers cheese, cream cheese, mild cheddar, and mozzarella.

Cheese making is a fairly complicated process requiring much practice, specialized equipment, and a skilled sense of chemistry. Before developing a cheese making enterprise, you might consider apprenticing at an existent cheese making business, and/or taking coursework in cheese making. Some of the most common organizations to apprentice through are listed to the left, while available courses are listed below.

Resources

Building a Specialty Cheese Plant

Prepared by: The Food Processing Center. University of Nebraska – Lincoln. 143 Filley Hall Lincoln, Nebraska 68583-0928. 2002
http://www.foodmap.unl.edu/report_files/Specialty_Cheese_Plant.pdf
This study evaluates true costs of developing a specialty cheese processing plant in the Nebraska, and contains useful information

representative of the United States at large. Includes overview of equipment suppliers.

Cheese Making for Beginners

David B. Fankhauser, Ph.D. Professor of Biology and Chemistry. U.C. Clermont College. Batavia OH 45103. FANKHADB@UC.EDU
http://biology.clc.uc.edu/fankhauser/Cheese/Cheese_course/Cheese_course.htm

A free & in-depth cheese-making lesson online. Covers many varieties of cheese, and links to other interesting cheesemaking sites.

Cornish Workshops

PO Box 114. Cornish Flat, NH 03746
Phone: 603-542-8635
Offer cheesemaking classes at irregular schedule.

The Maine Cheese Guild

c/o State of Maine Cheese Co.
461 Commercial Street
Rockport, ME 04846
Phone: 207-785-4431, please leave a message
Website: <http://www.mainecheeseguild.org>
In 2003, the Maine Cheese Guild was initiated to serve as a gathering place and resources for those interested in the cheese industry of the state. It features monthly meetings, an annual conference, group support, and a resource directory for cheese equipment, courses, and issues. The Guild is an invaluable resource for anyone considering cheese making in Maine.

Market Ripe for Cheese Makers

By Matt Wickenheiser, Portland Press Herald. September, 28, 2003.
Portland Phoenix article on growing cheese industry in Maine.

The Power of Cheese

By Andy King. Portland Phoenix. November 7-13, 2003.
<http://www.portlandphoenix.com/food/dining/documents/03300040.asp>
Portland Phoenix article on growing cheese industry in Maine.

The Specialty Cheese Market

The North Central Initiative for Small Farm Profitability Food
Processing Center, Institute of Agriculture and Natural Resources
143 Filley Hall East Campus
Lincoln, NE 68583-0928
402/472-2832

<http://www.farmprofitability.org/cheese.htm>

This report is intended to be an overview of the specialty cheese market and the marketing of its products. The report also attempts to uncover some of the opportunities and barriers associated with entering the specialty cheese market.

Value-Added Specialty Cheese Processing: Feasibility Study for Maine

By Dr. Joseph, Thomas College, Lewiston Maine, 1996

<http://www2.thomas.edu/faculty/joseph/cheese%20processing.pdf>

Research on dairy industry outlook in Maine as of 1996. Focuses on value-added dairy options, particularly Specialty Cheese Processing. Includes in-depth cost estimates, recipes, and valuable contact information.

Vermont Institute for Artisan Cheese.

University of Vermont. Burlington, VT 05405.

802-656-8300. www.uvm.edu/~viac/

The Vermont Institute for Artisan Cheese (VIAC) at the University of Vermont is the country's first comprehensive center devoted to artisan cheese. The institute connects cheesemakers with UVM cheese experts and dairy scientists as well as with internationally recognized experts. The center also offers cheesemaking courses.

World Cheese Exchange Database.

http://www.cdr.wisc.edu/applications/specialty_cheese/cheese_database.shtml

This comprehensive database funded by the Wisconsin Milk Marketing Board, includes information on over 1400 cheeses. The database is searchable by cheese name or nationality.

Ice Cream

In 2004, 1.5 billion gallons of ice cream, frozen yogurt, and sherbet were produced. Per capita consumption of these frozen desserts was about 22 quarts. Ice cream sales grew 24 percent between 1998 and 2003, and 93 percent of US households say they consume ice cream.¹⁹ According to the Agriculture Marketing Service, ice cream consumption in Maine is expected to increase by 7.78% between 2003 to 2008.²⁰ Ice cream provides a steadily growing market for dairy producers.

Ice cream is most commonly made with dairy cattle milk, although it can be made from both goat and sheep milk as well. Ice cream production requires high amounts of cream or milk fat, and so Jersey or Brown Swiss dairy cattle breeds work particularly well for this purpose.

Ice cream producers will have excess milk (generally non-fat milk that remains after the cream has been skimmed) that can be used to produce a non-fat product, such as cheese, yogurt, or fluid milk.

Ice cream production can be done on both a small scale and a large scale. There are several examples of successful mid to large-scale examples of locally produced ice cream in Maine, perhaps most notably, is Giffords Ice Cream.

Resources

Ice Cream Making

Anne Ingram
University of Guelph, Department of Food Science
Building 038
Guelph, Ontario N1G 2W1
Phone: 519-824-4120 X 52280
Email: ingram@uoguelph.ca
Website: <http://www.foodsci.uoguelph.ca/dairyedu/icecream.html>
Offers information on ice cream formulations, ingredients, shelf life and equipment requirements.

Ice Cream Short Course

Penn State University, Department of Food Science
111 Borland Laboratory
University Park, Pa. 16802
Phone: 814-865-7535
Email: IceCream@psu.edu
Website: http://www.creamery.psu.edu/short_course.html

This seven-day university short course, the oldest of its kind, covers everything from ingredients, to equipment and freezing.

Making Ice Cream and Frozen Yogurt

By Maggie Oster. Storey Publishing LLC. January 1995. 32pp.

National Ice Cream Retailers Association

1028 West Devon Ave.

Elk Grove Village, IL 60007

Phone: 847-301-7500

Website: <http://www.nicyra.org/>

This association serves retailers in the ice cream and frozen dessert business. Members receive monthly information on business related topics such as industry trends, labeling information and tax tips. They also hold an annual convention.

On-Farm Bottling/Glass Bottles

On-farm bottling is one of the most basic methods you can employ to increase the value of your milk. In Maine, a 6.13% increase in spending on milk and cream is expected to occur between 2003 and 2008, according to the Agricultural Marketing Service.²¹ Although milk consumption overall is currently on the decline, popularity of whole milk at specialty food stores in Maine remains great.²²

Increasingly farms have been returning to the old-fashioned returnable glass bottles. Such a system appeals to customers because they are assured of a quality product, they know where the milk was produced, and have a chance to be environmentally proactive by returning the reusable glass bottle.²³ Some consumers even claim that storing milk in glass is healthier and retains flavor better than do plastic bottles.

In Maine, glass bottles are preferred by far to other form of packaging amongst specialty food retailers, where 100% (or seven out of seven) of the retailers said customers favored this packaging to other forms.²⁴ The most desirable sized container amongst these retailers was ½ gallon.

For convenience purposes, you may want to consider on-farm bottling in plastic containers. Advantages of plastic containers include less initial costs and less concern over potential bottle returns. A bulk plastic container provider is likely located relatively near your farm, and therefore this bottling method would require less long-term storage at your farm than glass bottles which likely will need to be ordered in large quantity from out of state and stored until use.

On farm bottling is relatively easy, requiring only that you have enough on-farm refrigeration to store your product, that you source your own packaging, and that you have an efficient and regulation bottling and delivery system.

Organic

Organic is one of the largest niche markets in the United States today, and is on the rise. The Natural Marketing Institute reports that sales of organic foods reached \$7.8 billion in 2000, a 20-percent increase over sales in 1999.²⁵ 75% of Maine small-scale food purchasers surveyed reported that organic products were important to their customers.²⁶ Key selling points to organic consumers include health and nutrition, taste, environment, and availability.²⁷

Federal organic standards went into effect in October 2002. Certified organic means that agricultural products have been grown and processed according to the federal organic certification standards. For dairy farms, organic means raising livestock without synthetic pesticides or herbicides, no genetic modification, no added hormones or antibiotics, and only using organic feed.

In Maine, the local certifier is the Maine Organic Farmers and Gardeners Association (MOFGA). For a small fee they will send an agent to your farm to assure compliance with the federal standards. MOFGA agents are also available at any time to help you with questions or concerns you may have about transitioning to organic. To seek more information, contact MOFGA.

Organic certification presents some challenges. If you are not already organic, there will likely need to be a transition phase of at least 36 months before your farm can be certified. The cost of your feed also is likely to increase. Organic, however, has been known to increase the health of your animals (and thus cut-back of vet bills), and increase your profits.

Organic can be used in conjunction with any other processed dairy product to increase the overall value of the product. It also works well with dairy cattle, goats or sheep, although it may be easier to maintain a smaller herd under organic standards, than a large one.

Resources

CROPP

To learn more about CROPP (Organic Valley) visit:
<http://www.farmers.coop/> Or call: 1-888-809-9297
A large bulk organic dairy processor in Maine

Enterprise Budgets and Production Costs for Organic Production

ATTRA National Sustainable Agriculture Service. National Center for Appropriate Technology. 2004.
<http://www.attra.org/attra-pub/PDF/enterprisebudgets.pdf>

This resource list contains Internet-based sources of enterprise budgets and production cost information for organic production of horticultural and agronomic crops and for organic livestock enterprises.

Guide to ATTRA's Organic Publications .

ATTRA National Sustainable Agriculture Service. National Center for Appropriate Technology. 2006

<http://www.attra.org/attra-pub/PDF/organicpubslist.pdf>

To serve a growing organic agriculture field, ATTRA offers an annotated listing of the numerous ATTRA titles relating specifically to certified organic agriculture. The list includes publications on organic rules and compliance, farm inputs, soil, and pest management, as well as publications related to specific horticultural and field crops and organic livestock production. The list also includes ATTRA publications on marketing organic products and on the business of organic production. ATTRA also offers several Spanish-language publications on organic agriculture that appear on this list.

To receive a printed copy, contact ATTRA at 1-800-346-9140

Horizon Dairy

To learn more about Horizon Dairy, visit:

<http://www.horizonorganic.com/site/forfarmers/index.html> Or call:
1-888-648-8377

A large bulk organic dairy processor in Maine

Maine Organic Farmer and Gardener

PO Box 170
257 Crosby Brook Road
Unity, ME 04988
Phone: (207) 568-4142
Fax: (207) 568-4141
Email: mofga@mofga.org
<http://www.mofga.org/>

Recent growth patterns in the US Organic Foods Market.

Carolyn Dimitri, and Catherine Greene. Economic Research Service, USDA. September, 2002.

<http://www.ers.usda.gov/publications/aib777/>

This report summarizes growth patterns in the U.S. organic sector in recent years, by market category, and describes various research, regulatory, and other ongoing programs on organic agriculture in the U.S. Department of Agriculture.

National Organic Program

Agriculture Marketing Service, United States Department of
Agriculture

<http://www.ams.usda.gov/nop/indexNet.htm>

Website explains the US National Organic Standards

Northeast Organic Dairy Producers Alliance

c/o NOFA-VT?

P.O. Box 697

Richmond, Vermont 05477

Email: info@organicmilk.org

Website: <http://www.nodpa.com/index.html>

Transitioning to Organic

Sustainable Agriculture Research and Education, United States
Department of Agriculture. 2006.

<http://www.sare.org/publications/organic/index.htm>

*This online publication describes the many steps of making the
transition to organic.*

Yahoo- Organic dairy list

<http://groups.yahoo.com/group/Odairy/>

*Odairy is a electronic mailing group formed to allow organic dairy
producers to interact by email. ODAIRY was created by NODPA
(Northeast Organic Dairy Producers Alliance) in 2002.*

Rotational Grazing/Grass-based

Nine out of twenty small-scale Maine food purchasers claimed that grass or pasture-based products are important to their customers. They cited lack of education as being a primary reason for it not being more popular. They explained that some customers assume it implicit in the definition of “organic,” although it is not.²⁸

A successful grass-fed dairy is one in which animals exist out of doors on carefully managed forage for the warmer months of the year, and consume this forage as a primary source of their diet. Most grass-based dairies supplement their animals’ diet with grain and minerals, and this is often done at milking time when animals are all brought into one location.

Grass-fed dairy can be a good way to lower farm costs, but it requires additional work and a thorough understanding of forage management. This management system can be appealing to customers interested in animal welfare, environmental issues, and flavor. By feeding your animals on grass they often are healthier²⁹ and produce a richer-flavored milk.

The herd is regularly “rotated” through areas of forage to help monitor and maintain the quality and growth of the crop. Monitoring your forage will require a complex understanding of forage as a crop in and of itself. Below are a number of resources that can help start you on this endeavor.

Resources

Dairy grazing can provide good financial returns.

UW-Madison, Center for Integrated Agriculture Systems. 2004.
http://www.cias.wisc.edu/archives/2000/01/04/dairy_grazing_can_provide_good_financial_return/index.php

The Economics of Grass Based Dairying

By Tim Johnson, ATTRA National Sustainable Agriculture Service.
National Center for Appropriate Technology. March 2002.
<http://www.attra.org/attra-pub/ecodairy.html>
To receive a printed copy, contact ATTRA at 1-800-346-9140

Grazing Networks for Livestock Managers

ATTRA National Sustainable Agriculture Service. National Center for Appropriate Technology. 2006
<http://www.attra.org/attra-pub/summaries/grazingnetworks.html>
To receive a printed copy, contact ATTRA at 1-800-346-9140

Grass Farmers

By Allan Nation. Green Bark Press. 1993. 192 p.

Meeting the Nutritional Needs of Ruminants on Pasture

By Ron Morrow. ATTRA National Sustainable Agriculture Service.
National Center for Appropriate Technology. June 1998.

<http://www.attra.org/attra-pub/summaries/ruminant.html>

To receive a printed copy, contact ATTRA at 1-800-346-9140

Rotational Grazing

By Alice E. Beetz. ATTRA National Sustainable Agriculture Service.
National Center for Appropriate Technology. November 1994.

<http://www.attra.org/attra-pub/summaries/rotategr.html>

To receive a printed copy, contact ATTRA at 1-800-346-9140

The Stockman Grass Farmer

P.O. Box 2300

? Ridgeland, MS

39158-2300

Phone: ? (601) 853-1861

<http://www.stockmangrassfarmer.net/>

Published monthly. \$28/1 year; \$50/2 years.

Pastures: Sustainable Management

By Alice E. Beetz and Lee Rinhart. ATTRA National Sustainable
Agriculture Service. National Center for Appropriate Technology. 2006

<http://www.attra.org/attra-pub/summaries/sustpast.html>

To receive a printed copy, contact ATTRA at 1-800-346-9140

Why Grassfed Is Best

By Jo Robinson. Vashon Island Press. 2000.

Seasonal Dairying

Seasonal dairying, although not traditional in to the United States, is becoming more popular.³⁰ It is generally used in conjunction with a grass-fed herd, as it matches the natural breeding cycle of cattle to the availability of nutrient-rich forage. All cows are dried off during the few months where production costs are highest (usually the winter). Seasonal dairying affords farmers a break and can be one method of cutting back farm costs.

To successfully seasonal dairy, breeding must occur in a brief window of 6-8 weeks for the entire herd so that production is cohesive and timely. Additionally, a concern to keep in mind is customer loyalty, which may waver if your product disappears for several months of the year. One possible way to overcome this challenge could be to couple with a produce CSA for summer marketing (see CSA information below).

Resources

Grass-based and seasonal dairying

By Alice E. Beetz. ATTRA National Sustainable Agriculture Service.
National Center for Appropriate Technology. December, 1998.

<http://www.attra.org/attra-pub/gbdairy.html>

To receive a printed copy, contact ATTRA at 1-800-346-9140

Seasonal grass dairying said to be a way for Midwest to compete with California.

Anon. 1998. Stockman Grass Farmer. March. p. 18.

Unpasteurized Milk

Maine is one of 28 states in the United States currently permitting the sale of unpasteurized (or raw) milk. In recent years, there has been increased discussion of possible health benefits offered by milk not pasteurized. Although a controversial issue, some individuals and groups claim that because the milk was not heated, more nutrients are left in unpasteurized milk making it easier for many people to digest and offer a number of other benefits including a more flavorful taste.

Five out of seven Maine specialty food retailers surveyed in 2004, reported that unpasteurized or unhomogenized (creamline) milk were preferred over pasteurized & homogenized milk, which was preferred by only two retailers. Said one retailer, “The biggest deal is that it’s RAW. After that it doesn’t matter what the product is, someone will want it.”³¹

If producing unpasteurized milk for sale in Maine, you must be prepared to meet stringent regulatory standards and pass regular tests monitoring unhealthy bacteria in your milk. If done correctly in compliance with Maine State regulations, unpasteurized milk can be healthy food, and a lucrative market for Maine farmers, ½ gallon glass bottled milk can typically sell for \$5.00 (that includes a \$2.00 bottle return).

Unpasteurized milk is most often marketed in conjunction with on-farm bottling and organic, and can also be grass-fed and seasonal.

An additional consideration is that unpasteurized milk has a relatively short shelf life (approximately one-week). Assure that your market and delivery system is able to handle this rate of turnover.

Resources

NOFA Massachusetts Campaign for Raw Milk

Cyndy Gray
Manchester-by-the-Sea, MA
Phone: (978) 526 7440
Email: justdairy@adelphia.net
Website: <http://www.nofamass.org/programs/rawmilk/index.php#links>

Real Milk.com

www.realmilk.com/
Website of Weston A. Price Foundation national campaign for legalizing raw milk across the United States. Includes listing of raw milk sources in Maine.

Rise seen in sale of raw milk: Sale of unhomogenized, unpasteurized milk lawful in Pa., some other states

By Jennifer Gish, The Associated Press

Sunday, December 05, 2004

<http://www.post-gazette.com/pg/04340/421877.stm>

Yogurt

Yogurt production is on the incline, growing 8% between 2003 and 2004. Per capita consumption in the United States was 7.4 pounds in 2002³².

Yogurt appeals to niche health and nutrition markets for a number of reasons. It must contain *Lactobacillus bulgaricus* and *Streptococcus thermophilus* in order to be called yogurt. Both are probiotics known to aid in digestive health. They also help break down lactose in the milk, making it digestible to lactose intolerant individuals. Providing further appeal for health conscious buyers is yogurts' ability to be low fat and fat free, but still supply a flavorful source of calcium.³³

Beyond health factors, variety is also a big seller in the yogurt market. Not only is drinkable yogurt a growing trend, so are yogurts made of sheep and goat milk. Providing flavors in yogurts such as vanilla, maple, or fruits can be an additional plus.

Yogurt is a fairly simple method of processing fluid milk. It requires relatively low amounts of start-up equipment and supplies, and the principle of yogurt production is itself simpler than other dairy processing methods.

Resources

Making Cheese, Butter & Yogurt

By Phyllis Hobson. Storey Publishing, LLC. January 8, 1983. 32 pp.
Quick, practical guide to making small-scale cheese, butter and yogurt.

National Yogurt Association

2000 Corporate Ridge, Suite 1000
McLean, VA 22101.
Website: <http://www.aboutyogurt.com/>
The National Yogurt Association (NYA) is the national non-profit trade organization representing the manufacturers and marketers of live and active culture yogurt products as well as suppliers to the yogurt industry.

Yogurt Making

By Anne Ingram. University of Guelph, Department of Food Science
Building 038, Guelph, Ontario N1G 2W1
Phone: 519-824-4120 X 52280
Email: ingram@uoguelph.ca
Website: <http://www.foodsci.uoguelph.ca/dairyedu/yogurt.html>

Offers information on yogurt formulations, ingredients, and equipment needed.

Yogurt Making Illustrated

By David B. Fankhauser, Ph.D.

U.C. Clermont College, Batavia OH 45103

Email: fankhadb@uc.edu Website:

http://biology.clc.uc.edu/fankhauser/cheese/yogurt_making/YOGURT2000.htm

A free and in-depth yogurt-making lesson offered online by a biology and chemistry professor at the University of Ohio.

Other processing Ideas

Again, adding value to a raw product is a very creative venture. You should consider the wide array of products available in the market; this publication only begins to touch upon some of those options. Later, in the Marketing sections, you will see that marketing avenues themselves may present ideas about what type of products may sell.

Some additional options to consider that are not mentioned in greater depth in this publication, include: body care products, sour cream, dried non-fat milk, chocolate/fudge, and flavored milk.

Marketing Your Product

Research Your Customer

Before investing capital in your value-added enterprise, do some work to discover who will purchase your product. Nationally, there is a growing demand for convenient, ethnic and unique foods, organic and natural foods, and value (low prices)³⁴. Interest in “safe food” (which can translate into local products) is also on the rise³⁵.

Understanding customers is imperative to marketing. With the product you intend to produce in mind, you should research the following questions:

- 1) In the area that I hope to market, are there already similar products for sale?
 - a. Are there different similar products (competitors)?
 - b. What prices are they selling for?
 - c. Are any selling better than the others? Why?
 - d. How much is selling?
 - e. How can I make my product stand out, or better?
- 2) Ask proactively whether there are ANY related products that a potential customer is hoping to find. Perhaps these can ultimately fit into your production plan.
- 3) Who buys similar products, what are their needs, income, what price are they willing to pay, where are they located?
- 4) What do potential customers value: health, organics, natural, hormone-free, local products, etc.?
- 5) What is the size of this potential customer base- could it support your operation?
- 6) How hard or easy would it be to draw attention to your product?
- 7) What is your proximity to major population centers/and or how far are customers willing to travel to purchase your product?
- 8) What is the longevity of this market, is it consistent?

These questions should be researched thoroughly, some resources that will be helpful in this endeavor include, The University of Maine Cooperative Extension, The Department of Agriculture, Division of Market and Production Development, USDA ERS, private market trends research companies, and stores or people you hope to market to,

Some of the most typical methods employed in researching customers include surveys, interviews, and focus groups. Surveys should be concise and ask targeted questions regarding customer preferences in relation to your product. Interviews are basically a verbal survey and can be formal or on the spur of the moment. Focus groups are group-based interviews where a whole group is brought together to discuss your questions together. Focus groups often offer unique insight to group behavior in reference to your product, and can be fun for participants.

Target areas you plan to market at when acquiring research participants. It is important to keep accurate records of findings, and ask consistent questions. This will ultimately help assure that you have made accurate assessments of your profit potential.

To explore the size of your local market, view the publication, *Dairy Farms for the Future*, by Kerri Sands and Russell Libby. In this article, you will find a thorough explanation of how to calculate the size of customer base you will need to support your operation. For example, they discern that a 30-35 head dairy cattle operation could provide roughly enough fluid milk and cheese to feed about 1400 people, or 500 households.

Their study, completed in 2004, also provides detailed information on the specific needs of retailers, restaurants, and food distributors in Maine. Additional information on packing preferences and prices is also included.

After you have developed a market approach and product, if possible, test market your product. To do this, distribute a small amount of your product to the areas and people you believe would be potential customers. Register responses of these individuals and keep careful records to determine if your original plan will likely play out in reality. It is not always possible to create a small quantity of your product for a test market, but if you are able, it can be a great, relatively painless, way of learning about your products' true marketability.

Resources

12 Simple Steps to a Winning Marketing Plan

By Geraldine A. Larkin, 1992. Probus Publishing Co., Chicago, IL.

APHIS- Center for Emerging Issues

Natural Resources Research Center
Building B? 2150 Centre Avenue?
Fort Collins, CO 80526-8117?
Phone: (970) 494-7001
Website: <http://www.aphis.usda.gov/vs/ceah/cei/>

Dairy Farms for the Future: Diversifying farms to expand direct markets for milk products.

By Kerry Sands and Russell Libby. December, 2004.
This publication is available in print through The Maine Department of Agriculture, Division of Market and Production Development, and electronically on the Value-Added Dairy compact-disc developed by the Maine Department of Agriculture, Division of Market and Production Development, Division of Market and Production Development
28 State House Station , Augusta, ME 04333
Phone: (207) 287-3491

Direct Marketing

By Katherine Adam, Radhika Balasubrahmanyam, and Holly Born.
ATTRA National Sustainable Agriculture Service. National Center for
Appropriate Technology. November 1999. <http://www.attra.org/attra-pub/summaries/directmkt.html>

*Includes demographic information and a good checklist helpful in
preparing a Marketing Plan.*

To receive a printed copy, contact ATTRA at 1-800-346-9140

Economic Research Service

United States Department of Agriculture, <http://www.ers.usda.gov/>
Data on US food consumption and production by commodity

Emerging Markets for Family Farms

By Kelly O'Neill. 1997. Center for Rural Affairs, ? Walthill,
Nebraska. 62 p.

Evaluating a Rural Enterprise

ATTRA National Sustainable Agriculture Service. National Center for
Appropriate Technology. Available for \$7 from: CRAPO Box 406
Walthill, NE 68067-0406. Phone: 402-846-5428.

Maine Demographic and Consumption Profile

Agriculture Marketing Service, United States Department of
Agriculture, 2006
<http://www.ams.usda.gov/statesummaries/ME/MSA/MSA.pdf/Maine.pdf>

Maine State Marketing Profile

Agriculture Marketing Service, United States Department of
Agriculture, 2006
<http://www.ams.usda.gov/statesummaries/ME/MEhome.htm>

Market Planning for Value-Added Agriculture Products - 2001 - Direct Marketing Resource Guide.

By Lynda Brushett and Gregory Franklin.
University of New Hampshire, Cooperative Extension
131 Main Street, 16 Nesmith Hall
University of New Hampshire
Durham, New Hampshire 03824
<http://ceinfo.unh.edu/pubs.htm>

\$13.75 plus \$5.00 s/h for one copy.

This publication is a market planning workbook, and compilation of special topic articles. Topics include practical market research, pricing, break-even analysis, product differentiation and direct-to-consumer markets. Worksheets and organizers make this publication a useful tool. 3-ring binder. 50 pp.

National Agriculture Statistics Service

United States Department of Agriculture

<http://www.nass.usda.gov/>

Search agricultural data by state

Southern New England Farmer Research Group Network

275 Jackson St. ? Belchertown, MA 01007

Phone: 413-323-4531

Fax: 413-323 -9594

Email: info@smallfarm.org

Website: <http://www.smallfarm.org/frgn/index.htm>

Provides resources for farmers to test their ideas, current recommendations and alternative practices on their own farms. NESFI is a collaborator, facilitating farmer projects, meetings, and demonstrations.

Finding The Right Market Channels For Your Products

Below are market channels you may use to distribute your new product. Review these options carefully and consider that a variety of strategies are presented below, both traditional, and newer, more alternative outlets as well. Consider the size and capacity of your business, and the reality of which strategies will work best for you.

Conventional market models do not always meet the needs of specialty farm enterprises or small farms very well. Markets are very tight and, even if able to supply enough product to meet demands, small farms generally cannot afford the initial costs of being competitive. Fortunately, there is a plethora of alternative and innovative models that farmers may engage in.

Resources

Direct Farm to Consumer Marketing: A Profitable Alternative for Family Farm Operations

By, G.H. Sullivan et al. 1981. Purdue University Extension Service, West Lafayette, IN 47907.

Direct Marketing

By Katherine Adam, Radhika Balasubrahmanyam, and Holly Born. ATTRA National Sustainable Agriculture Service. National Center for Appropriate Technology. November 1999. <http://www.attra.org/attra-pub/summaries/directmkt.html>

To receive a printed copy, contact ATTRA at 1-800-346-9140

Direct Marketing Resource Guide

By David Chaney, Gail Feenstra and Jeri Ohmart. Sustainable Agriculture Research and Education. 2004. <http://www.sare.org/publications/dmrg.htm>

Dynamic Farmers' Marketing

By Jeff Ishee. Bittersweet Farmstead. 1997.

Farm Direct Marketing Digest

P.O. Box 4612 Pasco, WA 99302
Phone: 509-547-5538

Fax: 509-547-5563

Farmer Direct Marketing

Agriculture Marketing Service. USDA. 2006.

<http://www.ams.usda.gov/directmarketing/>

Links to many resources on direct marketing.

A Guide To Successful Direct Marketing

By Charles R. Hall and Jeff L. Johnson. Texas Agricultural Extension Service, Texas A&M University, College Station, Texas. 1992.

The Legal Guide for Direct Farm Marketing

By Neil D. Hamilton. Sustainable Research and Education, USDA. 1999.

Marketing Channel Research and Development

Agriculture Marketing Service (AMS), USDA

<http://www.ams.usda.gov/tmd/MSB/publications.htm#MarketingChannel>

List of related AMS publications

Wholesale through Restaurants/Institutions

The number of Americans eating away from home is on the rise.³⁶ This trend has increased the demand for food at restaurants and other institutions (such as universities and even medical settings). Furthermore, many restaurants and some institutions now highlight high quality, fresh foods, on their menu and are willing to pay a premium to purchase these items from near-by farms. Value-added dairy enterprises can capitalize on these trends by selling direct to restaurants or institutions.

In the conventional restaurant and institution systems, there is generally little room for small-scale producers. Most restaurants now have centralized purchasing and are contracted with large-scale distributors. Small-scale producers may have better luck seeking out independently operated restaurants or institutions as potential customers. If you can provide a product regularly at comparable or higher quality, and comparable price to their current product, then you may have a market.

To approach a restaurant or institution, you should come prepared with a list of potential products, realistic quantities you can provide, and pricing. Developing a personal relationship with the chef or head purchaser proves to be one of the main factors in developing a business relationship with a restaurant or institution.³⁷ Often, when speaking with a chef or buyer, he or she will already have an idea of what type of product you could potentially provide him or her with, which can in turn give you ideas on what product to produce.

One of the most difficult elements of selling to a restaurant or institution is providing a large enough quantity to meet their needs, while still receiving the price you need. Some ways to maneuver this situation, is to develop a product that can be produced in higher qualities. Butter, although being a profitable product, can rarely be produced quick enough on a small farm operation to serve all the needs of even the smallest restaurant or institution, whereas farm processed fluid milk could be possibly be produced in enough quantity.

Another challenge can be the occasionally sporadic needs of a buyer. A Massachusetts-based distributor explained, “Since restaurants’ needs are always changing, and since they don’t place orders more than a day ahead of time, it’s difficult to nail down anything as specific as, say “40 per week.” It might be 40 per week, one week, and then 100 the next. When a farmer develops a new product, they will buy a handful (10-20 units) and share it with a few select customers.”³⁸

Both dilemmas can be curtailed by good, clear communication. Be thorough in explaining your needs to a restaurant, and listening, in turn, to their specific needs. With clear communication you are opening the doors of negotiation and are likely to find some solution that works for you both.

Resources: Wholesale to Institutions

Innovative marketing for small farmers: Local schools as customers

Agriculture Marketing Service, USDA. February 2000.
<http://www.ams.usda.gov/tmd/MSB/PDFpubList/InnovativeMarketing.pdf>

How local farmers and school food providers are building alliances

Agriculture Marketing Service, USDA. December, 2000.
<http://www.ams.usda.gov/tmd/MSB/PDFpubList/localfarmsandschool.pdf>

New markets for producers: Selling to colleges

UW Madison Center for Integrated Agricultural Systems. February 1999.
http://www.cias.wisc.edu/archives/1999/02/02/new_markets_for_producers_selling_to_colleges/index.php

Resources for wholesaling

Agriculture Marketing Service, USDA. 2006.
<http://www.ams.usda.gov/tmd/MSB/publications.htm#Wholesale>

Selling to Institutions: An Iowa Farmer's Guide

By Robert Luedeman and Neil D. Hamilton. Drake University Agricultural Law Center. January 2003.
www.iowafoodpolicy.org/selling.pdf

Resources: Wholesale to Restaurants

Selling to Restaurants

By Janet Bachmann, ATTRA National Sustainable Agriculture Service. National Center for Appropriate Technology. August, 2004.
<http://www.attra.org/attra-pub/PDF/sellingtorestaurants.pdf>
To receive a printed copy, contact ATTRA at 1-800-346-9140

Get real get maine.

Maine Department of Agriculture
Division of Market and Product Development
28 State House Station
Augusta, ME 04333
Phone: (207) 287-3491

Email: getrealgetmaine@maine.gov

<http://www.getrealmaine.com/>

Provides listing of restaurants currently using some products from local farms.

Retail through specialty stores

For many small-scale Maine dairy farms, marketing to specialty or natural food stores assures good prices, continual business, local deliveries, and regular turnover. Managers at small stores often are more willing to work with the needs of farmers to make their customers happy, than large retailers may be. Still, marketing through stores of any sort require regular deliveries and commitments.

Maine has numerous specialty and natural food stores. You should approach the store managers to discuss the possibility of marketing your product through their store. Most managers will be able to inform you immediately whether your product will do well at their store. Each store is also likely to have its own set of admittance standards and expectations, including a trial period, and perhaps a promotional period where you will have to offer a discount on your product.

Resources: Retail through specialty stores

How to Get Your Product Into Supermarkets

By Stephen F. Hall. Dearborn Financial Publishing; 2nd edition. June, 1996.

New markets for producers: Selling to retail stores

UW Madison Center for Integrated Agriculture Systems. February 1999.

http://www.cias.wisc.edu/archives/1999/02/01/new_markets_for_producers_selling_to_retail_stores/index.php

Working with retail buyers

By Laurie S.Z. Greenberg. UW Madison Center for Integrated Agriculture Systems. August 2004.

<http://www.cias.wisc.edu/pdf/retail.pdf>

Community Supported Agriculture (CSA)

Although numerous variations exist on a CSA system, the basic principle is a customer pre-pays a farmer in winter or early spring for a regular supply of product throughout that growing season. CSA's currently are on the rise in the United States, as more farms discover this to be a profitable marketing method that meets their needs. Approximately 70 Maine farms currently utilize a CSA marketing structure.

Elements of a successful CSA include providing a diverse array of products, providing quality products, maintaining punctuality and reliability, easy access, and good personal relations between producer and customer.

A typical CSA share in Maine averages in cost from \$300 - \$400 and feeds approximately four people fresh food (primarily produce) over five months through weekly deliveries, although great variation exists in share costs and quantity. Sometime CSA members are responsible for picking-up their prepackaged "share" at a predetermined location, other times farmers drop off, and, in some CSA's, the share is mailed to customers.

Dairy and beef products are less common in CSA's than is produce, although there are several examples of successful meat CSA's in Maine. Dairy and meat operations are discovering that it is lucrative to couple with produce CSA's, ultimately providing customers a wider variety of foods throughout the year. Although many CSA customers may not want a large quantity of milk or meat each week, they do appreciate regularly acquiring a smaller quantity with their produce CSA.

For a comprehensive listing of Maine CSA's, visit: www.getrealgetmaine.com,

Maine Department of Agriculture
Division of Market and Product Development
28 State House Station
Augusta, ME 04333
Phone: (207) 287-3491
Email: getrealgetmaine@maine.gov

Resources

CSA email networking list

To subscribe, send a message to: listproc@prairienet.org. In the body of the message, type: subscribe csa-l, followed by your first name and your last name.

Community Supported Agriculture

By Katherine Adam. ATTRA National Sustainable Agriculture Service.
National Center for Appropriate Technology. February 2002.

<http://attra.ncat.org/attra-pub/csa.html>

To receive a printed copy, contact ATTRA at 1-800-346-9140

CSA 2001: An Evolving Platform for Ecological and Economical Agricultural Marketing and Production

By Warren Lizzio and Daniel A. Lass. Department of Resource Economics, University of Massachusetts. August, 2005.

http://www.nesawg.org/pdf/CSA_2001_report.pdf

This research paper analyzes information reported from CSA farms across the Northeast US over four survey years. The research focuses on how various farm and demographic characteristics affect farm viability or "success" (23 pages)

Sharing the Harvest: A Guide to Community Supported Agriculture

Elizabeth Henderson and Robyn Van En. Chelsea Green Publishing, White River Junction, VT. 1999.

Internet/mail order

Internet and mail order businesses are relatively new, and have been on the rise, offering opportunity for small-scale processors. Internet users share many qualities with direct market customers: both groups tend to consist of older, have higher educations, and above-average incomes.³⁹

Internet or mail order businesses may be set up through a number of venues, including catalogs and websites, or joining an existing program, such as “Signature Maine Products.”

Due to the generally perishable nature of dairy or meat products, any orders must be sent via 2-day air, which can become quite expensive. Similarly, setting up the money exchange system (particularly an internet store) requires a large amount of management skills.

Resources

E-Commerce in Agriculture

Economic Research Service, USDA. August 2002.
<http://www.ers.usda.gov/topics/view.asp?T=104222>

How to Direct Market Farm Products on the Internet

By Jennifer -Claire V. Klotz, Agriculture Marketing Service. USDA.
December 2002.
<http://www.ams.usda.gov/tmd/MSB/PDFpubList/InternetMarketing.pdf>
This publication is designed to help small/medium-sized agricultural producers better develop Internet-based sales transactions by recommending effective methods for reaching and retaining customers.

Signature Maine Products

4 Scamman St
Suite 19-351?
Saco, Maine 04072?
Phone - 207-284-1344?
Fax - 207-283-8670?
Email: info@ShopMaine.com
<http://www.madeinmaine.com/>

Farm store/farm stand

Farm stores and stands are relatively simple marketing avenues. They can be as straightforward as a table on the side of a road, or as elaborate as a formal store with electricity and running water. In Maine, over 560 farms currently utilize some form of farm stand or store.

When selling from a farm stand or farm store, location and access are critical elements for success. Your farm should be located within 30 minutes from a population center large enough to sustain your sales. A farm stand should be located in an area that has high traffic flow, is visible, and makes for an easy stop. You should also have parking areas available, and should consider providing access to restroom facilities.

Advertising is also a critical element of these marketing strategies. Clear, well-placed signage will help draw your initial customers, and continually provide access to new customers. Look into local codes before placing signs, as many communities have rules regarding such signs.

An additional market base you should consider is food stamp recipients. The state of Maine may be able to provide your farm stand or store with a free EBT machine so that you may swipe and accept food stamp cards. The machines require access to a landline phone. For this program, the usual monthly usage fee has been waived for Maine farms. Contact Deanne Herman to check the programs availability, call 1-877-823-4369 for an application to be authorized to accept food stamp sales. Any questions about filling out the application or the authorization process should be directed to Debbie Crosby at the USDA Food and Nutrition Service office in Augusta (207-622-8255).

Resources

Facilities For Roadside Markets

Northeast Regional Agricultural Engineering Service (NRAES)
Cornell University Ithaca, NY 14853-5701
This Booklet is available for \$5.50

Farmers' Markets

In the mid-seventies, there were fewer than 300 markets in the United States. In just two decades, this number grew to more than 2,400 farmers' markets, with approximately 1 million people visiting them each week.⁴⁰ Farmers' markets are a relatively simple to participate in, and they generally provide reliable access to a steady customer base. In Maine there are at least 65 farmers' markets, and an indoor market, Portland Public Market, was recently established in downtown Portland.

Farmers' markets are a fairly autonomous marketing system, with each market designing its own set of criteria and standards for participation. Most markets have membership fees, which can range widely in value, and the pay system for these fees varies equally greatly. Occasionally, markets have limited space, and so have waitlists for participation. You should contact each farmers' market you are interested in for more information about their requirements, and a vendor application form. Contact information for Maine farmers' markets can be found below.

Before joining a market, ask other participants about their perceptions of the market. Ask whether there are consistent customers and what products may be already be sold at the market. Avoiding a market if it carries too many products similar to yours may be a wise idea, as this may create unnecessary competition, and perhaps decrease the selling potential of your product.

You may also want to consider accepting food stamps at your farmers' market to increase customer base. For more information, see the "Food Stamp Information" in the Farm Store/Farm Stand section of this publication.

Resources

Bridging the Technology Divide: a guide to accepting food stamps at farmers' markets

By Lucinda Megill. Agriculture Marketing Service. USDA.
<http://www.ams.usda.gov/tmd/MSB/PDFpubList/BridgingtheTechnologicalDivide.pdf>

Establishing and Operating A Farmers' Market: A Manual for Sponsors, Boards of Directors, and Managers of Farmers' Markets

By R.P. Jenkins. University of Tennessee Agricultural Extension Service. 1991.

The Maine Federation of Farmers Markets

<http://www.snakeroot.net/mffm/>

A volunteer website providing information about the Farmers' Markets of Maine.

State Farmers' Market Representative

Deanne Herman
Maine Department of Agriculture? Marketing & Products
Development
28 State House Station
Augusta, ME 04333
Phone: (207) 287-7561 Fax: (207) 287-5576
? E-mail: deanne.herman@maine.gov
Website: www.getrealgetmaine.com
Provides a list of Farmers' Markets and contact information for each market.

U.S. Farmers Market- 2000, A study of emerging trends

By Time Payne. United States Department of Agriculture. May 2002.
<http://www.ams.usda.gov/directmarketing/FarmMark.pdf>

Marketing Placement

After producing a raw product and processing it into a final product, the next step is market placement. It can be argued that marketing is perhaps more important to a successful agricultural enterprise than is production. In the end, if without consistent buyers you have no business.

Key issues to consider in your marketing strategy include:

1. Make a true commitment to your market. You must be very consistent to your consumers: answer phone calls and keep a clear communication, provide product on a regular basis (year-round), and remain patient. It may take a while to develop a customer base, but be patient, find out if there is a way to increase product appeal within that market. Do not quickly jump from market to market.
2. Differentiate your product by doing it better, or different. In today's competitive market, you need to have a product that has a purpose unique unto itself. This will help limit competition and draw natural attention to what you are selling.
3. Market your product. Give your product personal meaning to each customer by having it tell a story. Make it special by relating it to your farm, or raising it in a particular way that will attract the attention of your customers.⁴¹

This section, combined with the information you learned about your customers in the previous section, will help you construct a marketing plan. Such a plan is very useful to keep you on budget in your new enterprise. Appropriate market planning is critical; be careful to spend enough money and effort on marketing so that it works, but not spend too much unnecessarily.

Promotion and Publicity

In the evaluation phase of your marketing plan, you learned a lot about your potential customer that will now assist you in promoting that product to him or her. Promotional strategies include advertising, pricing, packaging and labeling. Each is further discussed below.

Advertising

The following are all advertising strategies that can be employed to draw attention to your product.

Business Cards – Are a relatively inexpensive way, and very tactful way, of spreading information. Include your farm name (and logo if possible), phone number, farm location, website if you have one, and product.

Catalog- Catalogs may be very economical if you produce a number of products, develop a catalog with other related businesses, or seek inclusion in a catalog already in production that reaches your targeted customer base.

Direct Mail- This works well with a regular customer base. It can arrive in the form of entertaining and informative newsletter, coupons or event notices.

Educational Materials – Part of your advertising strategy should include educating customers about your product and its importance. Do not assume that everyone understands your product and its implications. Educating customers about your products' importance is likely to develop customer loyalty. In addition to informing customers through your packaging or conversation, you should consider developing other educational materials to provide for customers.

Farm logo/motto – A logo is a small, catchy image that represents your product to your potential customers. It should appear on everything you do and serves to build a memory of your product.

Host events – Events are relatively inexpensive and bring your customer base to you. In fall you can host hayrides or costume parties. In spring have an animal visitation day, winter can feature cross country skiing. The possibilities are endless.

Local Paper/news – Highlight your farm through throwing events or producing new food and call your local news sources and have them publicly announce the events for free. Invite a reporter or editor over for a food tasting. Provide the press with plenty of notice, have good photo opportunities and return phone calls.

Newsletter – Many farms utilize newsletters to keep customers involved and informed about your farm and production. They can be distributed either via your website, email or

in print through the mail. Make the newsletter entertaining and include a map to your farm.

Paid advertising- Advertisements can appear online, in newspapers, newsletters or magazines, television, or radio. Keep carefully track of expenditures and be sure you are targeting the correct crowd. Ask customers where they heard about your product. If sales do not increase due to paid advertisements, re-evaluate the quantity of ads (maybe you need more) and your methods of reaching your desired audience. This can usually cost between 4-10% of your total sales.⁴²

Promotion- Serves to invite customers to purchase from you, provides purchasing incentive, draws attention to your product. This can be accomplished through a number of methods, including at-store sales, coupons printable off of your website, or coupons printed in related newsletters, newspapers or magazines.

Road Signs- These signs should be placed at least ½ mile from where you want them to stop, this will allow enough time for motorists to think about stopping. Signs should be clearly printed and large enough to read. They should be unique and contain references to the product you are selling. You should check into area codes about signage, as you may have to comply with city ordinances in your sign placement and size.

Signs- Should be well-kept, concise, and contain a logo and/or image. Signs are very important to farm stands and farmers markets, and often serve to both to inform customers and to provide a welcoming or unique theme that draws attention to your product.

Website – Websites may be a good way to reach larger audiences than you directly have access to. With a website you can network easily within niche audiences by linking to select sites. Websites should be updated frequently and be checked often to assure they are in good working order. Be sure to include your web address on everything, and look for ways to make it appear higher on search engines. Be sure to make your site interesting and creative. See web marketing below for more information on web development.

Word-of-Mouth- An estimated 80% of sales is from returning customers.⁴³ Reward these customers with high quality, sales, and good service, and they will reward you with free advertising.

Packaging

Many small processing operations claim that packaging is one of the most costly elements of their operation.⁴⁴ Having good packaging is also very important and can make a significant difference in your business. Do careful research before deciding what packing will attract customers. Re-evaluate your packaging if it doesn't seem to be working as well as you hope.

Packaging should be attractive, unique, and functional. Depending upon your clientele, you may want it to be elaborate and expensive, or simple and less costly. By exploring different packing methods, you may even add more value to your product.

Labeling

Labeling is of concern both to the advertising portion of your enterprise, and also to the regulatory and legal elements. Label your product to differentiate it, and make it appeal to the customer base you researched in the Evaluation section. The label is where you can make claims about how your product has been raised.

Before claiming anything on your packaging, though, you should be sure that it is a legally recognized claim. Below are some examples of claims you may want to make on your product, and the ensuing requirements set forth by the government to validate those claims.

FSIS Approvable Claims:
Raised Without Added Hormones, Raised Without Antibiotics, Not Fed Animal By-Products, Free Range, Free Roaming, Grass Fed, Corn Fed, Grain Fed, Certified Organic (By Certifying Entity).
FSIS Unapprovable Claims:
Antibiotic Free, hormone Free, Residue Free, Residue Tested, Naturally Raised, Naturally Grown, Drug Free, Chemical Free, Organic, Organically Raised.

Source: USDA FSIS Approvable Claims

<http://www.fsis.usda.gov/Regulations_&Policies/labeling_policies/index.asp>, March 28, 2006

To make a claim, you must file an “Animal Production Claim” with the Labeling Review Branch of the USDA. To do this, submit a label application, a prepared label including the claim in question, and an Operational Protocol (OP). The OP is a detailed explanation of the conditions under which the animals are raised. For more information on labeling requirements and submitting an “Animal Production Claim”, contact the Labeling and Additives Policy Division of the FSIS.

Depending upon the size of your operation, there are many different avenues you may take in printing labels for your product. For a very small-scale project or operation, printing your own labels on a computer printer could be sufficient. You can purchase precut or full sheets of label stickers at any office supply store.

Most meat packers require that you bring prepared labels with the animals when you deliver them. Appendix C is a copy of the USDA information you must include on your labels, you may download this and edit in a graphic program to create your own label. You should converse with your slaughterhouse about other labeling requirements they may have, you will need to obtain their inspection number to include on your labels before printing.

For a larger or very regular enterprise, you will likely have to hire a professional label printing company. These will often help you prepare a design and you may have to provide them with specific graphic files.

If you are selling your product in a retail setting that uses electronic scanning, you will also need to obtain a UPC code, which you can do on-line through a number of vendors.

Pricing

When considering your price you have a lot of freedom, but do not under-price. Many small-scale producers tend to do this. One farmer in Minnesota explained that a good rule of thumb was to price high enough so that some customers walk away from your stand at the farmers' market.⁴⁵

You should develop a price with production and handling costs defining the lower end of your range, and the upper limit should be defined by what your customers are willing to pay. By reviewing the research you completed to determine your market potential, you should be able to discern what the competition charges and the price that your customers are willing to pay for your product.

You should also carefully evaluate business records and financial plans you have created to understand the amount you realistically need to earn to make a profit. Below is a calculation you can use to determine what price you should charge to break even in your enterprise.

Resources

Food Packaging

Agricultural Marketing Resource Center. 2005.

<http://www.agmrc.org/agmrc/markets/Food/food+packaging.htm>

Links to food packaging resources.

Labeling Issues

Agricultural Marketing Resource Center. 2005.

<http://www.agmrc.org/agmrc/markets/Food/food+labeling+issues.htm>

Links to resources dealing with product labeling issues.

Labels: Linking Consumers and Producers

Free monthly electronic newsletter from the Institute for Agriculture and Trade Policy that provides news, events and resources related to the labeling of products for environmental, social and regional

sustainability. To subscribe, send e-mail to: majordomo@igc.apc.org.
Leave subject blank. In body, type subscribe label-news.

Packaging Suppliers

New York State Food Venture Center, Cornell University
http://foodsafety.cas.psu.edu/processor/Packaging_Suppliers.pdf
Comprehensive list of United States packaging suppliers that can meet the needs of small-scale food manufacture.

Producer Price Index US Dept. of Labor, Bureau of Labor Statistics

<http://www.bls.gov/ppi/home.htm>
Includes average price per commodity, organized by industry and product

Regulations

To process food, you must comply with state and federal regulations. If operating on a very small scale, you may only need to comply with the Home Food Manufacturing regulations. Producing on any larger of a scale, and you will have to comply with the Maine Milk and Milk Processing regulations, which includes operating in a commercial kitchen. Rather than spending the capitol in constructing such a kitchen yourself, you may first want to explore the option of renting a commercial kitchen or finding a food incubation project in your area. Many such resources are listed below.

Becoming a food processor in Maine takes time. There are many regulations to comply with, some of the most notable being the construction of an on-farm processing area, which may cost upward of \$100,000, and need to meet rigorous maintenance requirements. This processing center will, among other qualities, need to include stainless steel equipment (specific equipment varies based upon your enterprise, see Equipment section for more details), must be closed off from other areas of the building, and be used only for its intended use, must have flowing, clean water, and nearby access to washing facilities. Furthermore, you will have to comply with strict labeling standards (see The Marketing Section for more information on labeling).

Before committing to becoming a food processor, you should read and understand the following regulations.

To produce and process milk in any situation:

Chapter 329: Rules Governing Maine Milk and Milk Products

Chapter 345: Home Food Manufacturing

Chapter 601: Milk and Milk Products

Cheese and Cheese Products:

Chapter 328: Rules Governing the Licensing and Inspection of Farm Cheese

These files are all available for download at

<http://www.maine.gov/sos/cec/rules/01/chaps01.htm>

Or, for print versions, contact The APA Office:

APA Office

Maine's Administrative Procedure Act

Division of Elections and Commissions

101 State House Station, Augusta, ME 04333-0101

PHONE (207) 624-7650

FAX (207) 287-6545

Be in contact with your local inspector as soon as possible in the planning stages of your processing enterprise. They can help you plan your facilities to assure that they are in compliance with State regulations. Maine currently has two inspectors:

Jim Bartlett: jim.bartlett@stae.me.us
Audrey Slattery: audrey.slattery@state.me.us
Phone: 287-7631

Resources

Establishing a Share-Use Commercial Kitchen

Bob Horn
Next Level Training Network
University of Colorado at Denver
Campus Box 128, PO Box 173364
Denver, CO 80217-3364
800-873-9378 (cost is \$58 plus \$4 s&h)
(303) 556-6651 FAX

Food Processing Incubators and Commercial Kitchens

Penn State, Food Entrepreneur Resources. January 2006.
<http://foodsafety.cas.psu.edu/processor/resources.htm#Inc>
*Links to resources on starting commercial kitchens and incubators;
also includes contact information for functioning kitchens.*

Maine Small Co-Packers and Commercial Kitchens

New York State Agriculture Experimentation Station. Cornell
University Listing. August, 2005.
<http://www.nysaes.cornell.edu/necfe/CoPackerKitchen/me.html>

USDA Food Safety and Inspection Service

<http://www.fsis.usda.gov/>
Meat and Poultry Hotline
Phone: 1-888-674-6854
Email: mp hotline.fsis@usda.gov
USDA Animal and Plant Health Inspection Service
Phone: 1-866-536-7593

Financing

Financing your operation is critical to its success. Using available cash to finance capital expenditures is NOT the way to fund a project. Nor is searching for grants. It is better to plan out your financial needs ahead, find sources of funds for long term depreciable capital expenditures, and save your available cash for daily operating needs.

Probably the first step you need to take is to find a bank willing to work with you. The Maine Department of agriculture has a pamphlet entitled: “Finding Funds for Farming”, that outlines banks willing to do agricultural financing in Maine. The booklet can also be found posted at www.maine.gov/agriculture/mpd/farmland.

Other programs listed below sometimes have funds and funding sources for projects. However, do not depend on grants for starting or continuing your enterprise. It is better to build a business on sound business plans which can cash flow loan payments over the life of the equipment or building upgrades.

Government Grants and Funding Sources:

Appropriate Technology Transfer for Rural Areas. National Center for Appropriate Technology. USDA

This site contains lists of loans, grants and disbursements organized by categories such as: Small Business and Entrepreneurs, Agriculture Programs, Food Systems & Nutrition and Health (among others).

<http://attra.ncat.org/guide/index.html>

The Cooperative State Research, Education and Extension Service (CSREES)

<http://www.csrees.usda.gov/>

CSREES has many funding opportunities. A complete list may be viewed at <http://www.csrees.usda.gov/fo/funding.cfm>.

Federal State Marketing Improvement Program

<http://www.ams.usda.gov/tmd/fsmip.htm>

The Federal-State Marketing Improvement Program (FSMIP) provides matching funds to State Departments of Agriculture and other State agencies for 20-30 projects per year, on average. These funds have been used by States to conduct marketing studies or assist in developing innovative approaches to the marketing of agricultural products.

The Food Nutrition Service USDA

The Food Nutrition Service (FNS) at USDA has been known to provide limited funds to support nutrition projects in low-income area, grant solicitations are available at:

<http://www.fns.usda.gov/fns/grants.htm>

Marketing Services Branch, AMS USDA

MSB provides funds to research and technical assistance partners through a cooperative agreement by which all money passes from the USDA to a state department of agriculture,

local or tribal governments, land-grant educational institution, or nonprofit organization. MSB contributes an average of \$30,000 to each cooperative agreement for collaborative research or technical assistance activities.

http://attra.ncat.org/guide/a_m/msb.html

Value-Added Agriculture Product Market Development Grants

<http://www.rurdev.usda.gov/rbs/coops/vadg.htm>

Value-Added Agricultural Product Market Development Grants (VADG) was authorized by the Agriculture Risk Protection Act of 2000 and has two primary objectives. The first is to encourage independent producers of agricultural commodities to furthered refine these products increasing their value to end users. The second objective is to establish an Information resource center to collect, disseminate, coordinate, and provide information on value-added processing to independent producers and processors.

Sustainable Agriculture Research and Education (SARE)

The Sustainable Agriculture Research and Education has 3 grant programs: research and education grants, professional grants and producer grants. For more information visit

<http://www.sare.org/grants/index.htm>

Equipment and Supplies

Equipment and supplies are one of the most variable elements of a dairy processing enterprise. The equipment you will need depends upon the product being manufactured, and the amounts in which you manufacture it. As mentioned above, developing a cheese processing facility may cost upward of \$100,000. Before committing to that cost it may be wise to first working at an operation that is similar to the one you plan to start.

Two valuable resources that can help you better understand your specific equipment and supply needs are your state dairy inspectors and the members of the Maine Cheese Guild. More information, by product, can also be found in the Value-Added Product section above.

The following is a list of dairy processing equipment and supply sellers that meet the needs of small dairy processing facilities:

Company Contact Information	Description
APV/Invensys 5100 River Road Schiller Park, IL 60176 (952) 927-4912 www.apv.invensys.com	A supplier of large scale food processing equipment.
C. van 't Riet Dairy Technology 70 Treasure Lake DuBois, PA 15801 (814) 591 6979 www.schuller.us/	A manufacturer of dairy equipment especially for pasteurizing and cheese making on the farm.
Caprine Supply P.O. Box Y DeSoto, KS 66018 1-800-646-7736 http://www.caprinesupply.com/	Carries a large selection of small-scale cheese making equipment, cultures and rennet's.
Dairy Connection www.dairyconnection.com	A supplier for commercial specialty & small cheese manufacturers. Carries products including cultures, coagulants, flavor enzymes (lipase), and other ingredients and services needed to make cheeses and fermented milks.
Damrow Equipment Company 196 Western Avenue Fond du Lac, WI 54936 (920) 922-1500 www.damrow.com	A supplier with complete dairy processing services and products available. Damrow can plan and supply equipment for all or any part of you cheese manufacturing operation from milk reception to packaging.

<p><u>Fromagex</u> Rimouski, Québec, CANADA 1-8666-437-6624 www.fromagex.com</p>	<p>This Canadian-based company carries products needed for a common cheese factory: from the small scale cheesemaker to the cheese plant.</p>
<p>Giles Dairy Service 351 W 900 North Springville, Utah 84663 801-372-1371 http://www.gilesdairyservice.com/</p>	<p>Carry a wide-range of dairy equipment.</p>
<p>Glengarry Cheesemaking Supply PO Box 92 Massena, NY, 13662 1-888-816-0903 http://glengarrycheesemaking.on.ca/</p>	<p>A source of equipment, supplies and accessories for making cheese, including molds and other ingredients for self sufficiency and commercial cheesemaking establishments.</p>
<p>Goodnature Products Inc. 149 Bud Mill Drive Buffalo, NY 14206 800-875-3381 http://www.goodnature.com</p>	<p>Supplier of a wide variety of pasteurizers.</p>
<p>Hamby Dairy Supply 2402 S.W. Water St. Maysville, MO 64469 (816) 449-1314 www.hambydairysource.com</p>	<p>Carries cow, goat and sheep milking equipment and processing supplies.</p>
<p>International Machinery Exchange 214 N. Main Deerfield, WI 53531 (608) 764-5481 www.imexchange.com</p>	<p>Provider of a full line of machinery for any type of cheese product.</p>
<p>JayBee Precision Inc PO Box 231 Bristol, New Hampshire 03222-0231 603-744-6644 www.jaybeeprecision.com</p>	<p>Jaybee's sell 'THE VAT', which is a 7 to 15 gallon pasteurizer and cheese vat built in the U.S.A. There is also a 22 to 30 gallon version available.</p>
<p>Kusel Equipment Company 820 West Street Watertown, WI 53094 (920) 2612-4112 www.kuselequipment.com</p>	<p>Custom designs and manufactures for unique application and requirements.</p>

<p>Leener's Brew Work 10216 Northfield Road Northfield Ohio 44067 1-800-543-3697 http://www.leeners.com/</p>	<p>Supplies for a variety of dairy processing and sausage making equipment and supplies.</p>
<p>New England Cheesemaking Supply Co. P.O. Box 85 Ashfield, MA 01330 (413) 628-3808 www.cheesemaking.com</p>	<p>A New England company supplying cheesemaking equipment, ingredients, information and advice.</p>
<p>Nunsuch www.nunsuch.org</p>	<p>Supplier of Microprocess pasteurizer.</p>
<p>Paris Farmers Union P.O. Box D South Paris, Maine 04281 207-743-8976 http://www.parisfarmersunion.net/</p>	<p>A Maine-based, regional retailer carrying dairy equipment.</p>
<p>Scherping Systems P.O. Box 10 Winstead, MN 55395 (320) 485-4401 www.scherpingsystems.com</p>	<p>A supplier of equipment for the dairy and food industry.</p>
<p>Shier Equipment Company 14459 S. 65th W. Avenue Sapulpa, Oklahoma 74066 (918) 321-3151 www.schiercompany.com</p>	<p>A buyer and seller of used dairy processing equipment</p>
<p>Stoelting Co. 502 Highway 67 Kiel, WI 53042 (920) 894-7029 www.stoelting.com</p>	<p>A diversified manufacturer of food service, cleaning, cheesemaking, and process equipment</p>
<p>Ullmer's Dairy Equipment Inc. 8628 Brown County Line Road Pulaski, WI 54162 (920) 822-8266</p>	<p>A supplier of equipment for the dairy industry.</p>
<p>Uncle Henry's 525 Eastern Ave. Augusta, Maine, 04330 (207) 623-1411 http://www.unclehenrys.com/</p>	<p>Occasionally contains ads for used dairy processing equipment in the Northeast.</p>

W.M. Sprinkman Co. 4334 Courtney Street/P.O. Box 390 Franksville, WI 53126 (262)835-2390 www.sprinkman.com	A provider of custom design, development, and installations for the food, dairy, beverage and pharmaceutical industries. They carry many different product lines.
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Resources

Dairy Processing Equipment

By Barbara and Steve Smith. Northeast Organic Farming Association of NY, Inc. 2001.

<http://nofany.org/offandf/01articles/dairyprocessing.pdf>

Elements of Food Processing, Methods and Equipment

Ohio State University

<http://class.fst.ohio-state.edu/FST401/Information/Elements-Food-Processing.html>

Includes good overview of technical aspects of dairy processing.

Contains links to images of specific processing equipment.

Livestock equipment and supplies in Maine

Maine Cooperative Extension

<http://www.umaine.edu/livestock/supplies.htm>

Includes a broad list of suppliers for most aspects of livestock management.

Maine State Dairy Inspectors

Jim Bartlett: jim.bartlett@stae.me.us

Audrey Slattery: audrey.slattery@state.me.us

Phone: 287-7631

The Maine Cheese Guild

c/o State of Maine Cheese Co.

461 Commerical Street

Rockport, ME 04846

Phone: 207-785-4431, please leave a message

Website: <http://www.mainecheeseguild.org>

Selection and Purchase of Used Food Processing Equipment

By Kent D. Rausch and Donald B. Erickson. Kansas State University.

December, 1996.

<http://www.oznet.ksu.edu/library/fntr2/mf2096.pdf>

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